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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,968	01/16/2004	Balarabe Nuhu Mohammed	05542-620001 / 007997	6515
26185	7590	09/20/2006	AGS	
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EXAMINER				
KRISHNAMURTHY, RAMESH				
ART UNIT		PAPER NUMBER		
3753				

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,968	MOHAMMED ET AL.	
	Examiner	Art Unit	
	Ramesh Krishnamurthy	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 53 is/are pending in the application.
- 4a) Of the above claim(s) 15 - 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This office action is responsive to communications filed 07/10/2006.

Claims 1 – 53 are pending.

1. Claims 15 – 52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07/10/2006.

2. It is noted that in the reply filed on 07/10/2006, applicants argued that the newly filed claim 53 is readable on the elected species A. However, it should be noted that the newly filed claim 53 pertains to a method of preventing a crosstalk in an array of mass flow controllers. Invention corresponding to claim 53 and that corresponding to the elected species are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus is used merely to control flow therethrough and not for preventing any cross talk in array of mass flow controllers.

3. During a telephone conversation with Attorney David Goren on 09/07/2006 a provisional election was made without traverse to prosecute the invention of the apparatus corresponding to Species A, claims 1 - 14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15 - 53 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claims 1 – 14 remain for further consideration.

5. The drawings are objected to because of the defects listed on the attached PTO-948 form. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 – 2, 7 – 8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ollivier (US 6,363,958).

Ollivier discloses a process control fluid assembly comprising pressure-compensating mass flow controller; the mass flow controller comprising: a control valve (in (22)), a flow sensor (5), a pressure sensor (6) that is positioned upstream of the

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control valve, wherein said control valve is operated based on signals from said flow sensor and said pressure sensor, including a display (40), said display displaying data based on said signal from said pressure sensor. A first pneumatic valve (14) is positioned upstream of said mass flow controller the valve being adapted to control flow of fluid through the process control fluid assembly. A second (20) and a third (24) pneumatic valve is disclosed as being disposed upstream and downstream respectively with reference to the mass flow controller (22).

8. Claims 1 – 3 and 6 – 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US 5,062,446).

Anderson discloses a process control fluid assembly comprising pressure-compensating mass flow controller (49), the mass flow controller comprising: a control valve (31a), a flow sensor (30a), a pressure sensor (42) that is positioned upstream of the control valve, wherein said control valve is operated based on signals from said flow sensor and said pressure sensor, including a display (inherent to a computer interface as is conventional, Col. 1, lines 40 – 43), said display displaying data based on said signal from said pressure sensor.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ollivier (US 6,363,958).

The patent to Ollivier discloses the claimed invention with the exception of explicitly disclosing the pressure sensor to be positioned upstream of the flow sensor (5).

To position the pressure sensor (6) upstream of the flow sensor (5) in Ollivier is a design expedient over those features disclosed in Ollivier in that it neither provides any new and/or unexpected result nor solves any stated problem. Moreover, the arrangement in Ollivier would function equally well with the pressure sensor (6) disposed upstream of the flow sensor (5). Ollivier merely requires the pressure sensor (6) to be adjacent to the flow sensor (5) (Col. 5, lines 24 – 29).

12. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollivier (US 6,363,958) or Anderson (US 5,062,446) as set forth above, and further in view of Moriya et al. (US 5,439,026).

The patent to Ollivier of Anderson discloses the claimed invention with the exception of explicitly disclosing the mass flow controller to comprise a filter.

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Moriya et al. discloses a mass flow controller (22) comprising a filter (24b, 24c) for the purpose of delivering a clean fluid to components downstream thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the mass flow controller in Ollivier or Anderson a filter for the purpose of delivering a clean fluid to components downstream thereof, as evident from Moriya et al.

13. Claims 9 - 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollivier (US 6,363,958) as applied to claims 1 – 2, 7 – 8 and 12 above, and further in view of Nelson (US RE. 29,322)

The patent to Ollivier discloses a first pneumatic valve that functions as a shut-off valve disposed upstream of the mass flow controller without explicitly disclosing a manual shut-off valve.

Nelson discloses an arrangement wherein a pneumatic valve is provided with a manual override means for the purpose of manually overriding the pneumatic signal in shutting off the valve for the purpose of safety under potentially unsafe conditions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the first pneumatic valve of Ollivier, a manual override means for the purpose of manually overriding the pneumatic signal in shutting off the valve for the purpose of safety under potentially unsafe conditions, as recognized by Nelson.

14. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson as applied to claims 1 – 3 and 6 – 7 above, and further in view of Ollivier (US 6,363,958).

The patent to Anderson discloses the claimed invention with the exception of explicitly disclosing a pneumatic valve for controlling the flow of a fluid through the process control assembly.

Ollivier discloses a pneumatic valve (14) for the purpose of controlling flow through the process control assembly in an on/off manner.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Anderson a pneumatic valve for the purpose of controlling flow through the process control assembly in an on/off manner, as recognized by Ollivier.

It is noted that Anderson does not disclose a pressure regulator.

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Ollivier or the combination of Anderson and Ollivier, as set forth above, and further in view of Moriya et al. (US 5,439,026).

The patent to Ollivier or the combination of Anderson and Ollivier as set forth above discloses the claimed invention with the exception of explicitly disclosing a substrate and a plurality of process fluid control assemblies disposed thereon.

Moriya et al. discloses (Figs. 8 – 10, for example) an arrangement wherein a plurality of process control assemblies are disposed on a substrate for the purpose of providing a compact gas supply arrangement.

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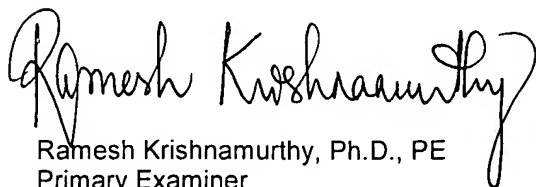
It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the arrangement of Ollivier or in the combination of Anderson and Ollivier as set forth above, an arrangement wherein plurality of process control assemblies are disposed on a substrate for the purpose of providing a compact gas supply arrangement, as recognized by Moriya et al.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE
Primary Examiner
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